WHAT IS CLAIMED IS:

1. A disk array system comprising:

at least one ATA magnetic disk;

at least one disk array controller for controlling the ATA magnetic disk; and

at least one interface card having a processing offload function module, existing on a path between the disk array controller and the ATA magnetic disk,

wherein the disk array controller outputs to the interface card one of a standard processing FC command for performing a standard processing, and an offload processing FC command for performing a vendor-unique offload processing,

the processing offload function module uses a command mapping table to issue to the ATA magnetic disk an ATA command that corresponds to the standard processing FC command.

2. A disk array system according to claim 1, wherein the processing offload function module prepares a group of ATA commands for the offload processing FC command which achieve optimal processing in an ATA protocol, and computes when necessary.

3. A disk array system according to claim 2, wherein the processing offload function module includes a command analysis processing section and an operation processing section, wherein the

command analysis processing section determines whether the standard processing FC command sent from the disk array controller can be mapped onto an ATA command, and the operation processing section takes over the offload processing FC command from the command analysis processing section and prepares the group of ATA commands.

4. A disk array system according to claim 3, wherein the disk array controller includes an offload processing discrimination section for discriminating whether the processing offload function module is present within the disk array system and if there is a usable offload processing.

5. A disk array system according to claim 3, wherein, when the offload processing FC command is a write with parity computation, the operation processing section issues a read command to read from the ATA magnetic disk, executes a parity computation, and issues a write command to write in the ATA magnetic disk.

6. A disk array system according to claim 3, wherein, when the offload processing FC command is an online multiple disk verification, the operation processing section takes over the offload processing FC command from the command analysis processing section, and issues a read command simultaneously to a plurality magnetic disks corresponding to IDs provided in a list by the disk array controller.

7. A processing offload function module in an interface card existing on a path between at least one ATA magnetic disk and a disk array controller that controls the ATA magnetic disk, the processing offload function module comprising:

a section that receives from the disk array controller one of a standard processing FC command for performing a standard processing, and an offload processing FC command for performing a vendor-unique offload processing; and

a section that uses a command mapping table to issue to the ATA magnetic disk an ATA command that corresponds to the standard processing FC command, and prepares a group of ATA commands for the offload processing FC command which achieve optimal processing in an ATA protocol, and computes when necessary.

8. A processing offload function module according to claim 7, comprising a command analysis processing section and an operation processing section, wherein the command analysis processing section determines whether the standard processing FC command sent from the disk array controller can be mapped onto an ATA command, and the operation processing section takes over the offload processing FC command from the command analysis processing section and prepares the group of ATA commands.

9. A processing offload function module according to claim 8, wherein the offload processing FC command is one of a write command with parity computation, an online multiple disk verification command, a RAID format command, and an inter-disk copy command.

10. A disk array system including a plurality of ATA magnetic disks, at least one disk array controller for controlling the ATA magnetic disks, and at least one interface card existing on a path between the disk array controller and the ATA magnetic disks, the disk array system comprising:

at least one disk storage housing containing a processing offload function module that connects to the ATA magnetic disks,

wherein the disk array controller outputs to the interface card one of a standard processing FC command for performing a standard processing, and an offload processing FC command for performing a vendor-unique offload processing, and

the processing offload function module uses a command mapping table to issue to the ATA magnetic disk an ATA command that corresponds to the standard processing FC command.

11. A disk array system according to claim 10, wherein the processing offload function module prepares a group of ATA commands for the offload processing FC command which achieve optimal processing in an ATA protocol.

12. A disk array system according to claim 11, wherein the processing offload function module includes a command analysis processing section and an operation processing section, wherein the command analysis processing section determines whether the standard processing FC command sent from the disk array controller can be mapped onto an ATA command, and the operation processing section takes over the offload processing FC command from the command analysis processing section and prepares the group of ATA commands.

13. A disk array system according to claim 12, wherein the offload processing FC command is one of a write command with parity computation, an online multiple disk verification command, a RAID format command, and an inter-disk copy command.

14. A disk array system comprising a plurality of magnetic disks, at least one disk array controller for controlling the magnetic disks, and at least one interface card having a processing offload function module existing on a path between the disk array controller and the magnetic disks,

wherein the plurality of magnetic disks include at least one ATA magnetic disk and at least one FC magnetic disk mixed therein,

the disk array controller outputs to the interface card one of a standard processing FC command for performing a standard processing,

and an offload processing FC command for performing a vendor-unique offload processing, and

when a FC command from the disk array controller is the standard processing FC command and is to access the FC magnetic disk, the processing offload function module passes the standard processing FC command to the FC magnetic disk without any processing rendered thereon, and

when a FC command from the disk array controller is the standard processing FC command and is to access the ATA magnetic disk, the processing offload function module uses a command mapping table to issue to the ATA magnetic disk an ATA command that corresponds to the standard processing FC command.

15. A disk array system according to claim 14, wherein, when a FC command from the disk array controller is the offload processing FC command, the processing offload function module converts the FC command into a group of commands that achieve optimum operation according to the type of the magnetic disks to be accessed and processing contents.

16. A disk array system according to claim 15, wherein the processing offload function module includes a command analysis processing section that, when the FC command from the disk array controller is the standard processing FC command and is to access the

ATA magnetic disk, determines whether the FC command can be mapped onto an ATA command.

17. A disk array system according to claim 16, wherein the processing offload function module includes an operation processing section that, when the FC command from the disk array controller is the offload processing FC command, takes over the offload processing FC command from the command analysis processing section and converts the offload processing FC command into the group of commands that achieve optimum operation.

18. A disk array system according to claim 17, wherein the offload processing FC command is one of a write command with parity computation, an online multiple disk verification command, a RAID format command, and an inter-disk copy command.

19. A disk array system comprising a plurality of magnetic disks, at least one disk array controller for controlling the magnetic disks, and at least one interface card existing on a path between the disk array controller and the magnetic disks,

wherein the plurality of magnetic disks include at least one ATA magnetic disk and at least one FC magnetic disk mixed therein,

the disk array controller includes a controller processing section that is connected to a processing offload function module provided for the disk array controller,

the controller processing section outputs to the processing offload function module one of a standard processing FC command for performing a standard processing, and an offload processing FC command for performing a vendor-unique offload processing,

when a FC command from the disk array controller is the standard processing FC command and is to access the FC magnetic disk, the processing offload function module passes the standard processing FC command via the interface card to the FC magnetic disk without any processing rendered thereon, and

when a FC command from the disk array controller is the standard processing FC command and is to access the ATA magnetic disk, the processing offload function module uses a command mapping table to issue via the interface card to the ATA magnetic disk an ATA command that corresponds to the standard processing FC command.

20. A disk array system according to claim 19, wherein, when a FC command from the disk array controller is the offload processing FC command, the processing offload function module converts the offload processing FC command into a group of commands that achieve optimum operation according to the type of the magnetic disks to be accessed and processing contents.